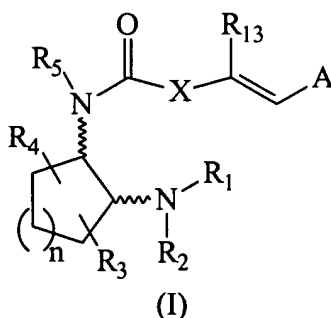


Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously Presented) A compound of formula (I), or a solvate or pharmaceutically acceptable salt thereof:



wherein, independently at each occurrence,

n is selected from 1, 2, 3 and 4;

X is a direct bond,

Y is a direct bond;

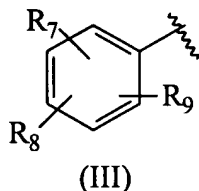
R₁₃ is selected from hydrogen, C₁-C₆alkyl, C₃-C₈cycloalkyl, aryl, and benzyl;

R₁ and R₂ are taken together with the nitrogen atom to which they are directly attached in formula (I) to form a morpholinyl ring and where any one or more of the carbon ring atoms in the morpholinyl ring may be substituted with one or two substituents selected from hydrogen, hydroxy, C₁-C₃hydroxyalkyl, oxo, C₂-C₄acyl, C₁-C₃alkyl, C₂-C₄alkylcarboxy, C₁-C₃alkoxy, C₁-C₂₀alkanoyloxy, or may be substituted to form a spiro five- or six-membered heterocyclic ring containing one or two heteroatoms selected from oxygen and sulfur; and any two adjacent carbon ring atoms in the morpholinyl ring may be fused to a C₃-C₈carbocyclic ring;

R₃ and R₄ are independently attached to the cycloalkyl ring shown in formula (I) at other than the 1 and 2 positions and are independently selected from hydrogen, hydroxy, C₁-C₆alkyl, and C₁-C₆alkoxy;

R₅ is hydrogen, C₁-C₆alkyl, aryl and benzyl; and

A is selected from C₅-C₁₂alkyl, a C₃-C₁₃carbocyclic ring, and a ring system of formulae (III):



where R₇, R₈ and R₉ are independently selected from bromine, chlorine, fluorine, carboxy, hydrogen, hydroxy, hydroxymethyl, methanesulfonamido, nitro, sulfamyl, trifluoromethyl, C₂-C₇alkanoyloxy, C₁-C₆alkyl, C₁-C₆alkoxy, C₂-C₇alkoxycarbonyl, C₁-C₆thioalkyl, aryl and N(R₁₅,R₁₆) where R₁₅ and R₁₆ are independently selected from hydrogen, acetyl, methanesulfonyl, and C₁-C₆alkyl;

including isolated enantiomeric, diastereomeric and geometric isomers thereof, and mixtures thereof.

2. (Previously Presented) A mixture of (1R,2R) -N-[2-(4-morpholinyl)cyclohexyl]-3,4-dichlorocinnamide monohydrochloride and (1S,2S)-N-[2-(4-morpholinyl)cyclohexyl]-3,4-dichlorocinnamide monohydrochloride, and pharmaceutically acceptable salts and solvates thereof.

3. (Previously Presented) A composition comprising a pharmaceutically acceptable carrier, excipient or diluent and a compound according to claim 1 or claim 2.

4. (Cancelled)

5. (Currently Amended) A method for treating arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-~~

~~diechlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-diechlorocinnamide, and mixtures thereof.~~

6. (Currently Amended) A method for modulating ion channel activity in a warm-blooded animal, the method comprising administering to a warm-blooded animal in need thereof an amount of a compound effective to modulate ion channel activity in the warm-blooded animal, wherein the compound is a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-diechlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-diechlorocinnamide, and mixtures thereof.~~

7. (Currently Amended) A method for modulating ion channel activity *in vitro* comprising contacting an ion channel *in vitro* with an amount of a compound effective to modulate ion channel activity, wherein the compound is a compound according to claim 1 or claim 2 ~~or is a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-diechlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-diechlorocinnamide, and mixtures thereof.~~

8 – 37. (Cancelled)

38. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable carrier, diluent, or excipient and a therapeutically effective amount of a compound according to claim 1 or claim 2.

39. (Currently Amended) A method for treating a cardiovascular disease in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-~~

~~3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

40. (Cancelled)

41. (Currently Amended) A method for treating cerebral or myocardial ischemias in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

42. (Cancelled)

43. (Currently Amended) A method for treating hypertension in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

44. (Cancelled)

45. (Currently Amended) A method for treating long-QT syndrome in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

46. (Cancelled)

47. (Currently Amended) A method for treating stroke in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

48-71. (Cancelled)

72. (Cancelled)

73. (Currently Amended) A method for producing local analgesia or anesthesia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

74. (Cancelled)

75. (Currently Amended) A method for treating heart failure in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

76 – 84. (Cancelled)

85. (Currently Amended) A method for enhancing libido in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof an enhancing amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

86. (Currently Amended) A method for providing therapy for atrial arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

87. (Currently Amended) A method for providing therapy for ventricular arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

88. (Currently Amended) A method for treating atrial fibrillation in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

89. (Currently Amended) A method of treating ventricular fibrillation in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

90. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable carrier, diluent, or excipient and an amount of a compound effective to block an ion channel in a warm-blooded animal, wherein the compound is a compound according to claim 1 or claim 2.

91. (Previously presented) A pharmaceutical composition according to claim 90, wherein the ion channel is a cardiac sodium channel.

92. (Previously presented) A pharmaceutical composition according to claim 90, wherein the ion channel is a cardiac potassium channel.

93. (Currently Amended) A method for blocking an ion channel in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof an amount of a compound effective to block an ion channel in the warm blooded animal, wherein the compound is a compound according to claim 1 or claim 2 ~~or is a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

94. (Currently Amended) A method according to claim 93, wherein the ion channel is a cardiac sodium channel.

95. (Currently Amended) A method according to claim 93, wherein the ion channel is a cardiac potassium channel.

96. (Currently Amended) A method for preventing arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

97. (Currently Amended) A method for preventing cerebral or myocardial ischemias in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

98. (Currently Amended) A method for preventing heart failure in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

99. (Currently Amended) A method for treating atrial arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-~~

dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.

100. (Currently Amended) A method for preventing atrial arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

101. (Currently Amended) A method for treating ventricular arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

102. (Currently Amended) A method for preventing ventricular arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

103. (Currently Amended) A method for preventing atrial fibrillation in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-~~

~~dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

104. (Currently Amended) A method of preventing ventricular fibrillation in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

105. (Cancelled)

106. (Currently Amended) A method for treating a condition in a warm-blooded animal, wherein:

the condition is selected from the group consisting of central nervous system diseases, convulsions, epileptic spasms, depression, anxiety, schizophrenia, Parkinson's disease, respiratory disorders, cystic fibrosis, asthma, cough, inflammation, arthritis, allergies, gastrointestinal disorders, incontinence, irritable bowel syndrome, migraine, ophthalmic diseases, diabetes mellitus, myopathies, Becker's myotonia, myasthenia gravis, paramyotonia congenita, malignant hyperthermia, hyperkalemic periodic paralysis Thomsen's myotonia, autoimmune disorders, graft rejection in organ transplantation or bone marrow transplantation, hypotension, Alzheimer's disease, dementia, or alopecia; and

the method comprises administering to a warm-blooded animal in need thereof an amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, or mixtures thereof,~~ effective to treat the condition.

107. (Currently Amended) A method for preventing a condition in a warm-blooded animal, wherein:

the condition is selected from the group consisting of central nervous system diseases, convulsions, epileptic spasms, depression, anxiety, schizophrenia, Parkinson's disease, respiratory disorders, cystic fibrosis, asthma, cough, inflammation, arthritis, allergies, gastrointestinal disorders, incontinence, irritable bowel syndrome, migraine, ophthalmic diseases, diabetes mellitus, myopathies, Becker's myotonia, myasthenia gravis, paramyotonia congenita, malignant hyperthermia, hyperkalemic periodic paralysis Thomsen's myotonia, autoimmune disorders, graft rejection in organ transplantation or bone marrow transplantation, hypotension, Alzheimer's disease, dementia, or alopecia; and

the method comprises administering to a warm-blooded animal in need thereof an amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, or mixtures thereof,~~ effective to prevent the condition.

108. (Previously Presented) A pharmaceutical composition comprising a pharmaceutically acceptable carrier, diluent, or excipient and an amount of a compound effective to provide therapy for arrhythmia in a warm-blooded animal, wherein the compound is a compound according to claim 1 or claim 2.

109. (Currently Amended) A method for providing therapy for arrhythmia in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

110. (Currently Amended) A method for preventing hypertension in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

111. (Currently Amended) A method for preventing long-QT syndrome in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

112. (Currently Amended) A method for preventing stroke in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

113. (Currently Amended) A method for preventing a cardiovascular disease in a warm-blooded animal comprising administering to a warm-blooded animal in need thereof a therapeutically effective amount of a compound according to claim 1 or claim 2 ~~or a compound selected from the group consisting of (1R,2S)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, (1S,2R)-N-methyl-N-[2-(1-pyrrolidinyl)cyclohexyl]-3,4-dichlorocinnamide, and mixtures thereof.~~

114. (Previously Presented) A compound selected from the group consisting of (1R,2R)-N-[2-(4-morpholinyl)cyclohexyl]-3,4-dichlorocinnamide monohydrochloride and (1S,2S)-N-[2-(4-morpholinyl)cyclohexyl]-3,4-dichlorocinnamide monohydrochloride, and pharmaceutically acceptable salts and solvates of any of the foregoing.